



AM100991

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re of Application of: Neal Jeffrey Green, Steve Yikkai Tam, Jason Shaoyun Xiang,
Audrey Molina Davies, Lihren Chen and Gary Paul Stack

Application No.: 10/629,227

Filed: July 28, 2003

For: DIHYDRODIPYRAZOLOPYRIDINONE INHIBITORS OF B7-1

Honorable Commissioner of
Patents and Trademarks
Washington, D.C. 20231

SIR:

DECLARATION UNDER 37 CFR § 1.131

JASON SHAOYUN XIANG and GARY PAUL STACK declare and say
that they are the same Jason Shaoyun Xiang and Gary Paul Stack who are co-inventors
of the above-identified patent application;

THAT the invention claimed in the above-identified application was
conceived and reduced to practice prior to March 1, 2002 which is the publication date
of the cited reference, Erbe, J. Biol. Chem., 2002, 277(9), 7363-7368.

THAT attached Exhibit I is a true copy of the notebook records wherein
compounds of the invention, compound A and compound B, were prepared; only the
dates of the above-referenced notebook pages have been blocked out but the dates are
prior to March 1, 2002;

THAT Exhibit I, which relates to the above-mentioned conception and
actual reduction to practice, corresponds to the invention broadly disclosed and claimed
in the above-identified patent application;

THAT the undersigned co-inventors declare further that all statements
made herein of their own knowledge are true, and that all statements made on

information and belief are believed to be true; and further that these statements were made with knowledge that willful, false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon;

Further declarants saith not.

Dated: 10/19/04

Jason Shaoyun Xiang
JASON SHAOYUN XIANG

Dated: 10/20/04

Gary Paul Stack
GARY PAUL STACK

ACKNOWLEDGMENT

As to Jason Shaoyun Xiang:

State of Massachusetts }
County of Middlesex } ss:

On the 19th day of October 2004, Jason Shaoyun XIANG personally appeared before me, known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he/she executed the same, of his/her own free will and for the purposes set forth.

ON THIS 19 DAY OF Oct. 2004, BEFORE ME,
PERSONALLY APPEARED Jason S. Xiang PROVED
TO ME THROUGH SATISFACTORY EVIDENCE OF
ID. WHICH WAS MA Drivers Lic.
TO BE THE PERSON WHOSE NAME IS SIGNED ON
THE PRECEDING OR ATTACHED DOCUMENT IN MY
PRESENCE.

Lorrie J. Federico
Notary Public

LORRIE J. FEDERICO
NOTARY PUBLIC
COMMONWEALTH OF MASSACHUSETTS
MY COMMISSION EXPIRES
FEBRUARY 12, 2010

ACKNOWLEDGMENT

As to Gary Paul Stack:

State of New Jersey }
County of Middlesex } ss:

On the 20 day of October 2004, Gary Paul STACK personally appeared before me, known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he/she executed the same, of his/her own free will and for the purposes set forth.

Carole K. Kamrad
Notary Public

BLL:ckk
Attachment

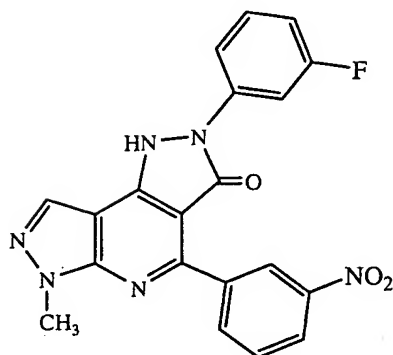
CAROLE K. KAMRAD
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires Nov. 25, 2007



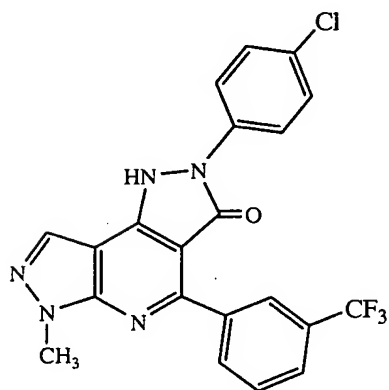
AM100991

EXHIBIT I

COMPOUND A



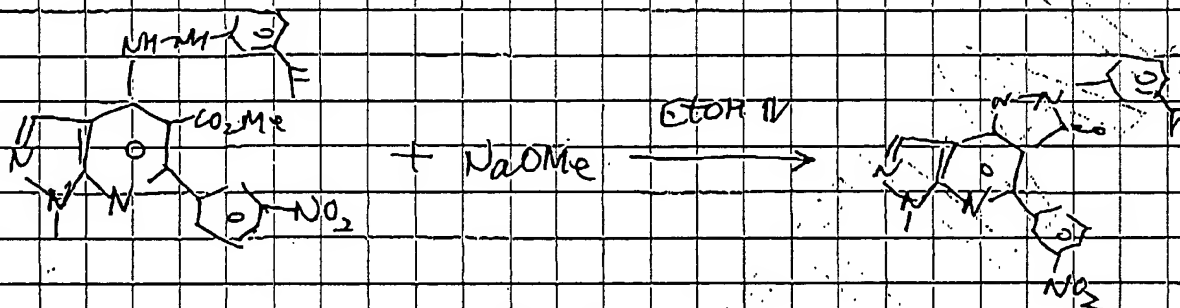
COMPOUND B



TITLE

PROJECT NO.

Work continued from Page



95 mg

26 mg

MW 436

54

0.22 mole

0.48 mole

eq 1.0

2.2

Procedure: SM dissolved in 15 mL of EtOH was added with 2 eq NaOMe. Start heating at 10:30 am.

Boiling started at 11:15 am, after 3 hrs. heat EtOH off. TLC & LCMS, all SM gone. two major spots, (major peak is desired prod.) crude mixture stood in refrigerator for weekend.

8/9/99. remove EtOH, partitioned between CH2Cl2 / H2O (add 2 mL water of).

Work continued to Page 7

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE / /

PROPRIETARY INFORMATION BELONGING TO GENETICS INSTITUTE

TITLE

PROJECT NO.

Work continued from Page 69

some solids coming out, and stay in between
CH₂Cl₂ and H₂O phase.

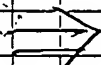
LCMS:

① 6562-069-H₂O : most undesired prod

② 6562-069-CH₂Cl₂ : most prod.,
LCMS same as crude

③ 6562-069-solids : pure products

Do column on 6562-069-CH₂Cl₂,
Combine with solids.



cats 893174

WAY - 195151 - -1

Work continued to Page

SIGNATURE

Jason Kiang

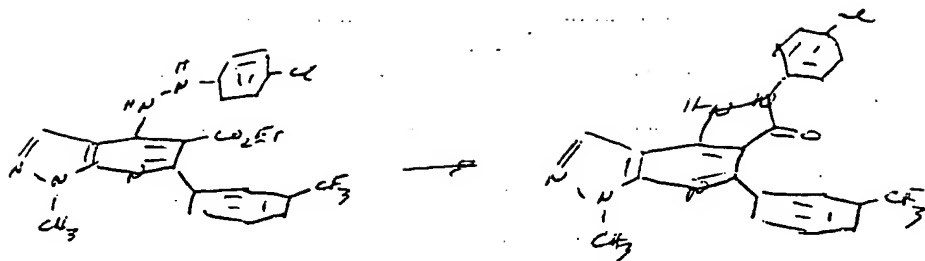
DATE

DISCLOSED TO AND UNDERSTOOD BY

Hans Kummer

DATE

PROPRIETARY INFORMATION BELONGING TO
GENETICS INSTITUTE



489 g/mole

2.4 g

5.0 mmole

2.4 g of oil (red-brown) derived from 7343 - 297 was dissolved in 100 ml of EtOH + a solution of 0.10 mole (2.3 g) of sodium in 100 ml of EtOH was added. The mixture was refluxed under N_2 for 6 hr. + allowed to stand over the weekend.

Solvent removed in vac. + 500 ml CH_2Cl_2 added. Washed with 500 ml sat NaHCO_3 . \Rightarrow Sol'd. Removed CH_2Cl_2 + extracted the ag. w/ EtOH . \Rightarrow Sol'd. Dried both organics w/ Na_2SO_4 .

Filtered + evapor'd the organic + chrom'd the residue on 100 g silica w/ CH_2Cl_2 . \Rightarrow 40% $\text{EtOH}/\text{CH}_2\text{Cl}_2$ = 1.1 g mp 286-8° Anal. Δ 3982

Calc for $\text{C}_{21}\text{H}_{13}\text{N}_5\text{OCClF}_3$:

C 56.53 H 2.95 N 15.78

Found 56.31 3.06 15.43

Wt 46,284

Harry Stark

Observed _____

Read _____

Signed X. Xero

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☒ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.